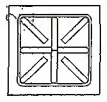


# STRUCTURAL NOTES



- NOTES:**
1. ALL COLUMN BARS SHALL BE L90.
  2. THE NO. OF BARS  $\times$  SPACING SHALL BE TO BE
  3. FOR NO. OF BARS  $>$  BARS, SIZE OF THE BARS SHALL BE ENL.
  4. THE CORNER BARS SHALL BE ENL.

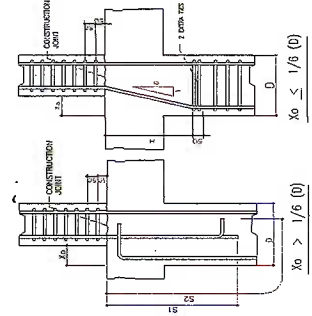
**NOTES ON LAP SPICE**

1. CENTER LINE OF SPICE SHALL BE WITH CENTER LINE OF COLUMN.
2. LAP LENGTH SHALL BE 40D.
3. LAP LENGTH SHALL BE 40D.
4. LAP LENGTH SHALL BE 40D.

**NOTES ON MECHANICAL AND WELDED SPICE**

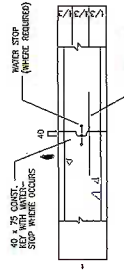
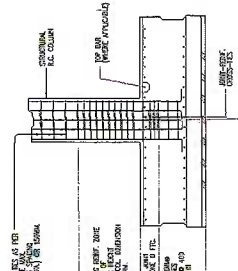
1. MECHANICAL AND WELDED SPICE SHALL BE DEVELOP IN TENSION OR COMPRESSION AS REQUIRED. AT LEAST 10% PERCENT OF THE SPICED TENSILE STRENGTH OF THE BAR.
2. THE WELDING SHALL BE AS PER THE DESIGN SPECIFICATION.
3. THE WELDING SHALL BE AS PER THE DESIGN SPECIFICATION.
4. THE WELDING SHALL BE AS PER THE DESIGN SPECIFICATION.

## SEISMIC RESISTANT COLUMN SPlicing DETAIL

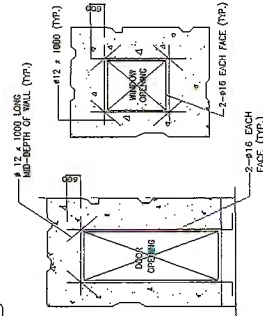


- NOTES:**
1. THE 90-DEGREE BEND SHALL BE LOCATED WITHIN THE COVERED CORE OF A COLUMN OF A BEMSAJTY REQUIRED.
  2.  $X_o =$  EFFECT DISTANCE.

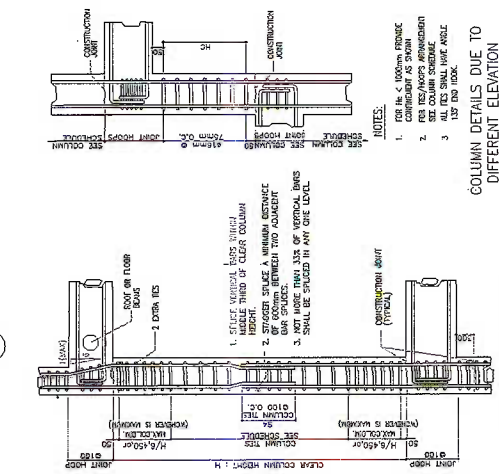
## DETAILS DUE TO COLUMN OFFSETS



## R. C. WALL CONSTRUCTION JOINT

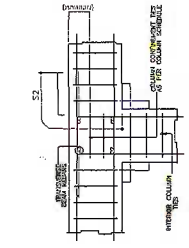
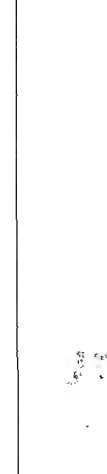


## REINFORCED CONCRETE COLUMN DETAIL

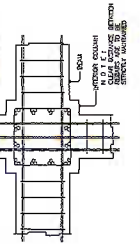


## MISCELLANEOUS COLUMN DETAILS

## REINFORCED CONCRETE COLUMN DETAIL



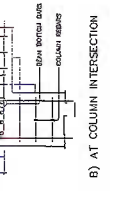
## BEAM REBAR TERMINATION BEND



## CORNER / EXTERIOR COLUMN TERMINATION BEND



## TYP. BEAM AND GIRDER REBAR LAYOUT



## AT COLUMN INTERSECTION



<b>PREPARED BY:</b> ROMBLON STATE UNIVERSITY OFFICE OF AUXILIARY, PLANT SERVICES AND POLLUTION CONTROL UNIT	<b>CIVIL ENGINEER:</b> ISIDORO S. SALMINGO PRC REG. NO. : 027692 Validity : Date : 1-27-17 Place: SAN JOSE, ROMBLON TIN: 46-512-742-000	<b>CHECKED BY:</b> JEROME ADOLFO F. PALARITO Assistant Director APPROVED BY: [Signature] [Signature]	<b>PROJECT TITLE:</b> CONSTRUCTION OF EXTENSION AND TRAINING CENTER LOCATION : ROMBLON STATE UNIVERSITY - Main Campus, Libanang, Odiongan, Romblon	<b>SHEET CONTENT:</b> AS SHOWN	<b>PREPARED BY:</b> CAD OPERATOR: Manuel M. Antonio JOB NO. : DATE : JUNE 2017
					S-4

# STRUCTURAL NOTES

## GENERAL NOTES ON STRUCTURAL STEEL

- ALL MATERIALS SHALL BE CONFORM TO THE FOLLOWING UNLESS OTHERWISE NOTED:
  - STRUCTURAL STEEL : ASTM A36 OR APPROVED EQ
  - STRUCTURAL STEEL PIPE : ASTM A53 GRADE B OR APPROVED EQ
  - STEEL BOLTS : ASTM A325 OR APPROVED EQ
  - ANCHOR BOLTS : ASTM A307 OR APPROVED EQ
  - WELDING : ASTM B2.1 E70XX OR APPROVED EQ
  - ELECTRODES : ASTM B2.1 E70XX OR APPROVED EQ
- HIGH STRENGTH BOLTS SHALL BE USED IN BEARING TYPE CONNECTIONS. BOLTS SHALL BE SNUG-TIGHT.
  - FOLLOWING DIMENSIONS SHALL BE APPLIED UNLESS OTHERWISE NOTED.
 

M16 AND M22 NUTS	
BOLT HOLE DIAMETER(MM)	18 22 24 26
STANDARD BOLT PITCH(MM)	50 60 70 80
STANDARD EDGE DISTANCE(MM)	30 35 40 45
- SECONDARY STRUCTURAL BOLTS
  - BOLT THREAD AND NUT SHALL BE CONFORM TO AISI B1.1(102) AND AISI B10.22 (1043) OR ISO 282.
  - DIMENSIONS OF BOLT HOLE DIAMETER, STANDARD BOLT PITCH AND STANDARD EDGE DISTANCE SHALL BE SAME TO THAT OF HIGH STRENGTH BOLTS.
- LEG LENGTH OF FLEET WELD FOR GUSSET PLATE, RIB PLATE, BATT PLATE AND SINTERER PLATE, UNLESS OTHERWISE NOTED.
 

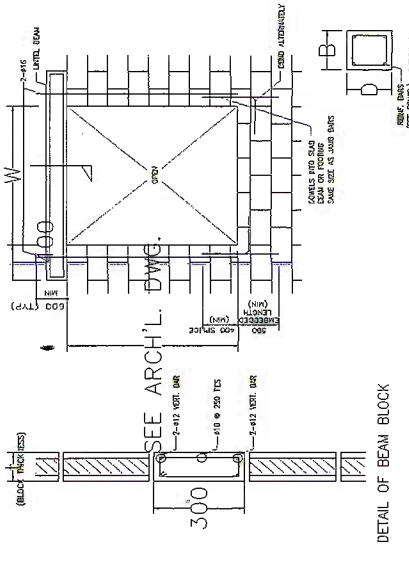
PLATE THICKNESS(MM)	LEG LENGTH(MM)
5	5
6	6
7	7
8	8
10	10
11	11
12	12
- FABRICATION AND ERECTION TOLERANCE SHALL BE CONFORM TO THE AMERICAN INSTITUTE OF STEEL CONSTRUCTION (AISC).
- PAINTING
  - STRUCTURAL STEEL HAS BEEN SURFACE PREPARED AND PAINTED IN ACCORDANCE WITH THE CONSTRUCTION SPECIFICATION.

## REFERENCE GUIDE SYMBOLS

FOR THE PURPOSE OF GIVING FURTHER DETAILS, SECTIONAL VIEW AND STANDARDIZED TYPES TO BE REFERRED "REFERENCE GUIDE SYMBOLS" AS DESCRIBED BELOW ARE USED IN THE RELEVANT ENGINEERING DRAWINGS TO MAKE THE REFERENCE RELATION SIMPLE AND CLEAR.

- SYMBOL** COLUMN EXPANSION
- SYMBOL TO QUOTE STANDARD DETAIL NO.
  - SYMBOL TO QUOTE INDIVIDUAL DETAIL OR SECTIONAL VIEW WHICH ARE NOT STANDARDIZED
- DETAIL NO. OR SECTIONAL NOTATION** NOTES, IF REFERRED ENGINEERING DRG. NO. TO BE REFERRED

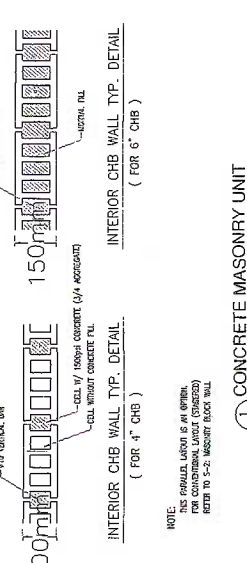
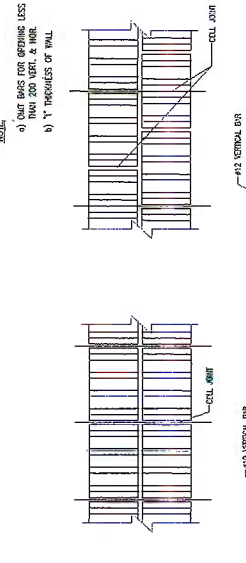
## GENERAL NOTES ON STRUCTURAL STEEL



DETAIL OF POST

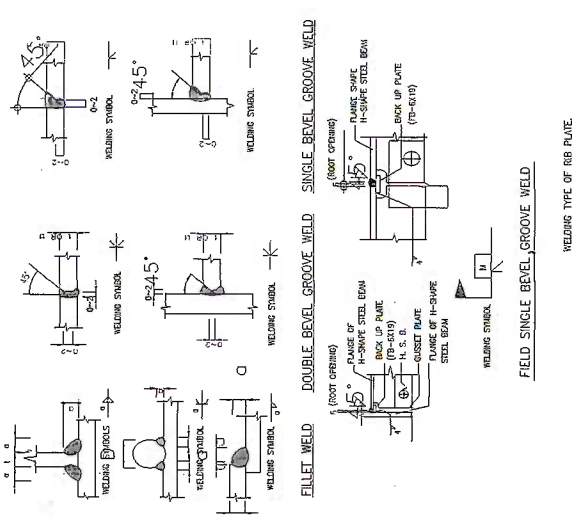
W	B	D	REF. BARS
2000 OR LESS	250	4-#12 W/ #10 @ 200 STRIPPS	
3000	300	4-#16 W/ #10 @ 200 STRIPPS	

NOTE:  
 a) 10# BARS PER SPACING LESS THAN 200 USE #8 BARS.  
 b) 1" THICKNESS OF WALL



## CONCRETE MASONRY UNIT

NOTE:  
 THIS SHALL BE IN ACCORDANCE WITH THE CONSTRUCTION SPECIFICATION FOR CONCRETE MASONRY WALL.



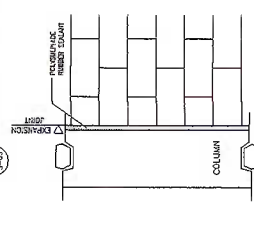
WELDING TYPE OF H-SHAPE FLANGE

THK. OF FLANGE (t)	WELDING TYPE	WELDING SYMBOLS
1 ≤ t ≤ 12	FLEET WELD	
12 < t ≤ 16	SINGLE BEVEL GROOVE WELD	
t > 16	DOUBLE WELD GROOVE WELD	

WELDING TYPE OF RIB PLATE, H-SHAPE WEB OR GUSSET PLATE

THK. OF FLANGE (t)	WELDING TYPE	WELDING SYMBOLS
1 ≤ t ≤ 12	FLEET WELD	
12 < t ≤ 16	SINGLE BEVEL GROOVE WELD	
t > 16	DOUBLE WELD GROOVE WELD	

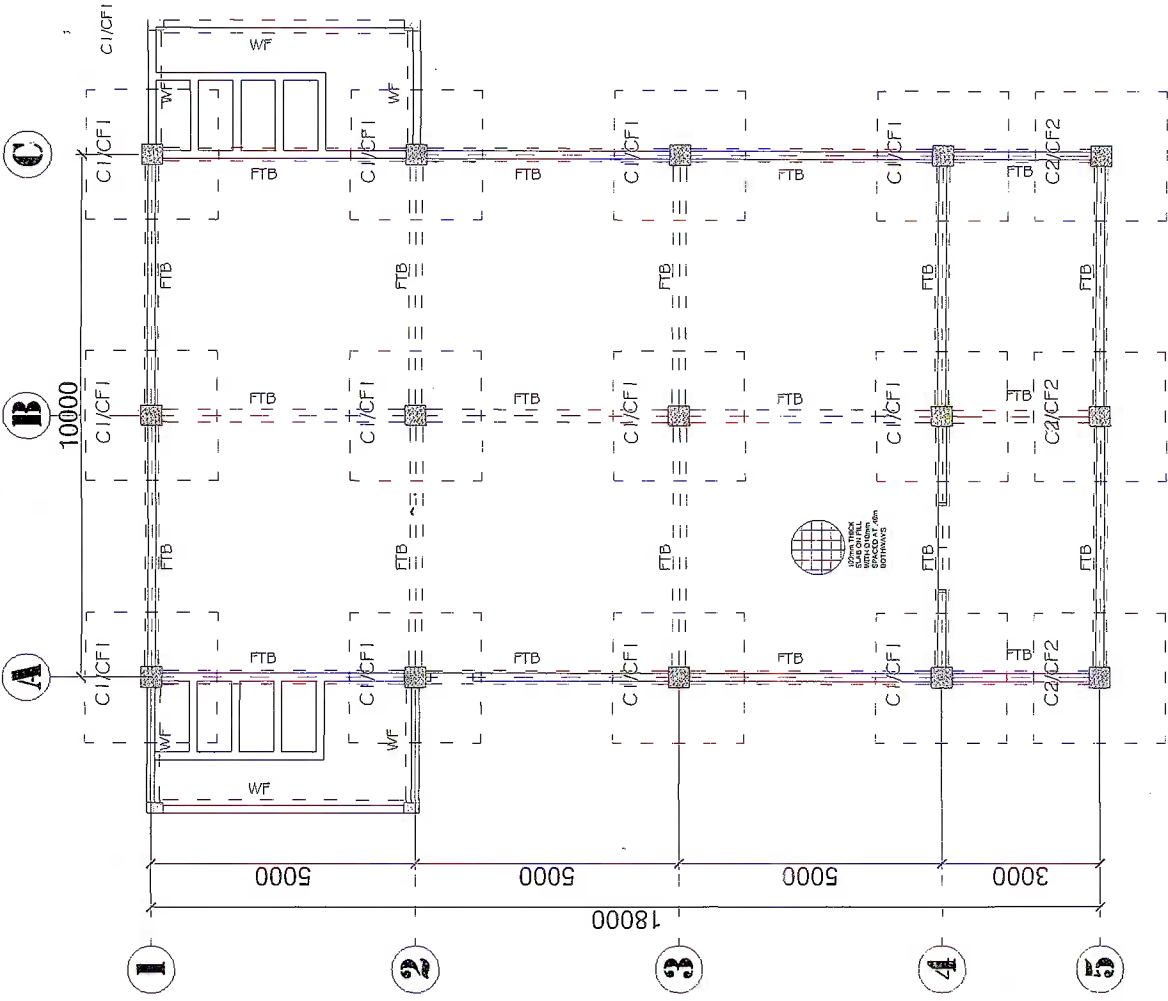
## STANDARDIZED WELDS



## MISCELLANEOUS DETAIL (WALL EXPANSION JOINT)

<b>PREPARED BY:</b> ROMBLON STATE UNIVERSITY OFFICE OF AUXILIARY, PLANT SERVICES AND POLLUTION CONTROL UNIT	<b>CIVIL ENGINEER:</b> ISIDORO SALMANGO PRC REG. NO. 54736872 Validity	<b>CHECKED BY:</b> JEROME ADOLFO F. FAJARITO REGISTERED ENGINEER	<b>PROJECT TITLE:</b> CONSTRUCTION OF EXTENSION AND TRAINING CENTER	<b>SHEET CONTENT:</b> AS SHOWN	<b>PREPARED BY:</b> CAD OPERATOR: Menwalme Botoni
	PTR No.: 1795904 Date: 1-27-17 Place: SAN JOSE, ROMBLON TIN: 446-312-742-000	<b>APPROVED BY:</b> [Signature] ARNOLD JOSE LUNA REGISTERED ENGINEER	<b>JOB NO.:</b> [Blank]	<b>DATE:</b> JUNE 2017	<b>AS SHOWN</b>





**I FOUNDATION PLAN**  
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<b>ROMBLON STATE UNIVERSITY</b> OFFICE OF AUXILIARY, PLANT SERVICES AND POLLUTION CONTROL UNIT	CIVIL ENGINEER ISDRO R. SALMINGO PTR No. : 1795904 Place: SAN JOSE, ROMBLON Date : 1-27-17 TIN: 446-312-742-000	CHECKED BY : JEROME ADOR P. PAJARITO Project Engineer APPROVED BY : ARNOLD DE LUNA Asst. President	PROJECT TITLE : <b>CONSTRUCTION OF          EXTENSION AND TRAINING CENTER</b> LOCATION : ROMBLON STATE UNIVERSITY - Main Campus, Linaoang, Romblon, Mindanao	SHEET COMMENT: AS SHOWN	PREPARED BY: CAD OPERATOR: Menwalim Rotoni JOB NO. : DATE : JUNE 2017	S-6	
	PREPARED BY :	ROMBLON STATE UNIVERSITY OFFICE OF AUXILIARY, PLANT SERVICES AND POLLUTION CONTROL UNIT	CIVIL ENGINEER ISDRO R. SALMINGO PTR No. : 1795904 Place: SAN JOSE, ROMBLON Date : 1-27-17 TIN: 446-312-742-000	CHECKED BY : JEROME ADOR P. PAJARITO Project Engineer APPROVED BY : ARNOLD DE LUNA Asst. President	PROJECT TITLE : <b>CONSTRUCTION OF          EXTENSION AND TRAINING CENTER</b> LOCATION : ROMBLON STATE UNIVERSITY - Main Campus, Linaoang, Romblon, Mindanao	SHEET COMMENT: AS SHOWN	PREPARED BY: CAD OPERATOR: Menwalim Rotoni JOB NO. : DATE : JUNE 2017